

**IN THE CLAIMS**

1-41. (Canceled)

42. (Previously Presented) A method for treating cancer, comprising:

administering to a human subject an effective amount for treating cancer of a CpG immunostimulatory oligonucleotide having at least one unmethylated CpG dinucleotide, wherein at least one nucleotide of the stabilized CpG immunostimulatory oligonucleotide has a phosphate backbone modification and wherein the oligonucleotide is 8 to 100 nucleotides in length, wherein the phosphate backbone modification is a phosphorothioate modification.

43. (Previously Presented) The method of claim 42, further comprising administering a chemotherapeutic agent.

44. (Previously Presented) The method of claim 42, further comprising administering a cancer immunotherapeutic agent.

45. (Previously Presented) The method of claim 42, wherein the cancer is brain cancer.

46. (Previously Presented) The method of claim 42, wherein the cancer is lung cancer.

47. (Previously Presented) The method of claim 42, wherein the cancer is ovarian cancer.

48. (Previously Presented) The method of claim 42, wherein the cancer is breast cancer.

49. (Previously Presented) The method of claim 42, wherein the cancer is prostate cancer.

50. (Previously Presented) The method of claim 42, wherein the cancer is colon cancer.

51. (Previously Presented) The method of claim 42, wherein the cancer is leukemia.
52. (Previously Presented) The method of claim 42, wherein the cancer is carcinoma.
53. (Previously Presented) The method of claim 42, wherein the cancer is sarcoma.
- 54-58. (Canceled)

59. (Previously Presented) The method of claim 42, wherein the CpG immunostimulatory oligonucleotide comprises:



wherein  $X_1X_2$  and  $X_3X_4$  are nucleotides.

60. (Previously Presented) The method of claim 59, wherein  $X_3X_4$  are nucleotides selected from the group consisting of: TpT, and TpC.
61. (Previously Presented) The method of claim 59, wherein  $X_1X_2$  are GpA and  $X_3X_4$  are TpT.
62. (Previously Presented) The method of claim 59, wherein  $X_1X_2$  are both purines and  $X_3X_4$  are both pyrimidines.
63. (Previously Presented) The method of claim 59, wherein  $X_1X_2$  are GpA and  $X_3X_4$  are both pyrimidines.
64. (Previously Presented) The method of claim 59, wherein the oligonucleotide is 8 to 40 nucleotides in length.

65. (Previously Presented) The method of claim 59, wherein 5' X<sub>1</sub> X<sub>2</sub>CGX<sub>3</sub> X<sub>4</sub> 3' is not palindromic.

66. (Previously Presented) The method of claim 42, wherein the CpG immunostimulatory oligonucleotide includes at least two CpG motifs.

67. (Previously Presented) The method of claim 66, wherein at least one of the at least two CpG motifs is not palindromic.

68. (Previously Presented) The method of claim 42, wherein the oligonucleotide is administered prior to a chemotherapy.

69. (Previously Presented) The method of claim 42, wherein the oligonucleotide is administered subcutaneously.

70. (Canceled).

71. (Previously Presented) A method for treating non small cell lung carcinoma (NSCLC) in a human subject, comprising

administering to a human subject having NSCLC an effective amount to treat NSCLC of an immunostimulatory oligonucleotide that includes at least one unmethylated CpG dinucleotide, wherein the immunostimulatory oligonucleotide includes a phosphate backbone modification and, wherein the oligonucleotide is 8 to 100 nucleotides in length, wherein the phosphate backbone modification is a phosphorothioate modification.

72. (Previously Presented) The method of claim 71, further comprising administering a chemotherapeutic agent.

73. (Previously Presented) The method of claim 71, further comprising administering an immunotherapeutic agent.

74. (Canceled).

75. (Previously Presented) The method of claim 71, wherein the oligonucleotide is 8 to 40 nucleotides in length.

76. (Previously Presented) The method of claim 71, wherein the CpG immunostimulatory oligonucleotide includes at least two CpG motifs.

77. (Previously Presented) The method of claim 76, wherein at least one of the at least two CpG motifs is not palindromic.

78. (Previously Presented) The method of claim 71, wherein the oligonucleotide is administered subcutaneously.

79. (Previously Presented) The method of claim 71, further comprising administering an antigen.

80. (Previously Presented) The method of claim 42, further comprising administering an antigen.